[4910-13-P]

### **DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration** 

**14 CFR Part 39** 

[Docket No. FAA-2016-6426; Directorate Identifier 2016-NM-023-AD; Amendment

39-18791; AD 2017-02-12]

RIN 2120-AA64

**Airworthiness Directives;** The Boeing Company Airplanes

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for all The Boeing Company Model 737-300, -400, and -500 series airplanes. This AD was prompted by reports of intergranular cracks on the front spar chord lugs of the outboard horizontal stabilizer. This AD requires repetitive inspections of the front spar chord lugs and lug bores of the horizontal stabilizer, and repair if necessary. We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone: 206-544-5000, extension 1; fax: 206-766-5680; Internet: https://www.myboeingfleet.com. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW.,

Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2016-6426.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2016-6426; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Payman Soltani, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5313; fax: 562-627-5210; email: Payman.Soltani@faa.gov.

#### SUPPLEMENTARY INFORMATION:

#### Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all The Boeing Company Model 737-300, -400, and -500 series airplanes. The NPRM published in the <u>Federal Register</u> on May 10, 2016 (81 FR 28774) ("the NPRM"). The NPRM was prompted by reports of intergranular cracks on the front spar chord lugs of the outboard horizontal stabilizer. The NPRM proposed to require repetitive inspections of the front spar chord lugs and lug bores of the horizontal stabilizer, and repair if necessary. We are issuing this AD to detect and correct

cracking of the front spar chord lugs of the horizontal stabilizer. Such cracking could cause stabilizer instability, adversely affect controllability of the airplane, and adversely affect the structural integrity of the airplane.

#### **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM and the FAA's response to each comment.

# **Support for the NPRM**

Boeing had no objection to the NPRM.

# Effect of Winglets on Accomplishment of the Proposed Actions

Aviation Partners Boeing stated that accomplishing Supplemental Type Certificate (STC) ST01219SE does not affect the ability to accomplish the actions specified in the proposed AD.

We concur with the commenter. We have redesignated paragraph (c) of the proposed AD as paragraph (c)(1) and added paragraph (c)(2) to this AD to state that installation of STC ST01219SE does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01219SE is installed, a "change in product" alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

### **Request to Revise Compliance Time**

All Nippon Airways (ANA) requested that we revise paragraph (i) of the proposed AD to provide a grace period of 27 months after the effective date of the AD in which to accomplish the initial inspection on horizontal stabilizers, including replacement horizontal stabilizers. ANA stated that these revisions would reduce the burden on

operators. ANA proposed new, complex language for paragraph (i) of the proposed AD that would incorporate their proposal.

We partially agree. We agree that the 27-month after the effective date of this AD grace period applies to replacement horizontal stabilizers. However, we do not agree to add a grace period of 27 months to paragraph (i) of this AD or to incorporate ANA's proposed language. We have revised paragraph (i) of this AD to clarify the provisions to address ANA's concern and to align more closely with the language used in similar ADs.

The compliance time in paragraph (g) of this AD applies to all horizontal stabilizers, including those installed after the effective date of this AD. Because the unsafe condition is related to corrosion, the compliance times in this AD are measured in months. Therefore, time accumulated on a horizontal stabilizer on and off an airplane applies to the initial compliance time and the repetitive inspection interval. A horizontal stabilizer that is off the airplane when the next inspection is due is not required to be inspected until it is ready to be installed on the airplane.

#### Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

### Related Service Information under 1 CFR Part 51

We reviewed Boeing Alert Service Bulletin 737-55A1092, dated August 7, 2015. The service information describes procedures for inspections for corrosion and cracking of the front spar chord lugs of the horizontal stabilizer, and inspections for corrosion of the lug bores. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

# **Costs of Compliance**

We estimate that this AD affects 346 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

#### **Estimated costs**

| Action      | Labor cost   | Parts cost | Cost per<br>product          | Cost on U.S. operators         |
|-------------|--|------------|------------------------------|--------------------------------|
| Inspections | 14 work-hours X \$85<br>per hour = \$1,190 per<br>inspection cycle | \$0        | \$1,190 per inspection cycle | \$411,740 per inspection cycle |

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this AD.

## **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII,
Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress
charges the FAA with promoting safe flight of civil aircraft in air commerce by

prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

# **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
  - (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

## § 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**2017-02-12 The Boeing Company**: Amendment 39-18791; Docket No. FAA-2016-6426; Directorate Identifier 2016-NM-023-AD.

### (a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### (b) Affected ADs

None.

# (c) Applicability

- (1) This AD applies to all The Boeing Company Model 737-300, -400, and -500 series airplanes, certificated in any category.
- (2) Installation of Supplemental Type Certificate (STC) ST01219SE (http://rgl.faa.gov/Regulatory\_and\_Guidance\_Library/rgstc.nsf/0/ebd1cec7b301293e862 57cb30045557a/\$FILE/ST01219SE.pdf) does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01219SE is installed, a "change in product" alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

### (d) Subject

Air Transport Association (ATA) of America Code 55, Stabilizers.

### (e) Unsafe Condition

This AD was prompted by reports of intergranular cracks on the front spar chord lugs of the outboard horizontal stabilizer. We are issuing this AD to detect and correct cracking of the front spar chord lugs of the horizontal stabilizer. Such cracking could

cause stabilizer instability, adversely affect controllability of the airplane, and adversely affect the structural integrity of the airplane.

# (f) Compliance

Comply with this AD within the compliance times specified, unless already done.

## (g) Repetitive Inspections and Repairs

Within 27 months after the effective date of this AD: Do the actions required by paragraphs (g)(1) and (g)(2) of this AD, and do all applicable repairs, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-55A1092, dated August 7, 2015, except as required by paragraph (h) of this AD. Do all applicable repairs before further flight. Repeat the inspections specified in paragraphs (g)(1) and (g)(2) of this AD thereafter at the applicable intervals specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-55A1092, dated August 7, 2015.

- (1) Do a detailed inspection for corrosion and an ultrasonic inspection for cracking of the front spar chord lugs of the left and right horizontal stabilizers.
- (2) Do a detailed inspection for corrosion of the lug bores of the front spar chord of the left and right horizontal stabilizers.

### (h) Service Information Exception

Where Boeing Alert Service Bulletin 737-55A1092, dated August 7, 2015, specifies to contact Boeing for appropriate action, and specifies that action as "RC" (Required for Compliance): Before further flight, repair using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

### (i) Parts Installation Limitation

As of the effective date of this AD: A horizontal stabilizer may be installed on any airplane, provided all applicable actions required by the introductory text of paragraph (g) and paragraphs (g)(1) and (g)(2) of this AD are done within the compliance

times specified in the introductory text of paragraph (g) of this AD, and in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-55A1092, dated August 7, 2015, except as required by paragraph (h) of this AD.

## (j) Alternative Methods of Compliance (AMOCs)

- (1) The Manager, Los Angeles Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (k) of this AD. Information may be emailed to: 9-ANM-LAACO-ACO-AMOC-Requests@faa.gov.
- (2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.
- (3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Los Angeles ACO, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.
- (4) Except as required by paragraph (h) of this AD: For service information that contains steps that are labeled as RC, the provisions of paragraphs (j)(4)(i) and (j)(4)(ii) of this AD apply.
- (i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. If a step or substep is

labeled "RC Exempt," then the RC requirement is removed from that step or substep. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

### (k) Related Information

For more information about this AD, contact Payman Soltani, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles ACO, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5313; fax: 562-627-5210; email: Payman.Soltani@faa.gov.

## (l) Material Incorporated by Reference

- (1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.
- (2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.
  - (i) Boeing Alert Service Bulletin 737-55A1092, dated August 7, 2015.
  - (ii) Reserved.
- (3) For Boeing service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone: 206-544-5000, extension 1; fax: 206-766-5680; Internet: https://www.myboeingfleet.com.

(4) You may view this service information at FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Renton, Washington, on January 17, 2017.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.
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